

KIC 011910896

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011910896-01	OBS	No	1.695331	131.730893	13.6	5.952	8.8	4.4	1.72	6412	0.87	5240.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011910896-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

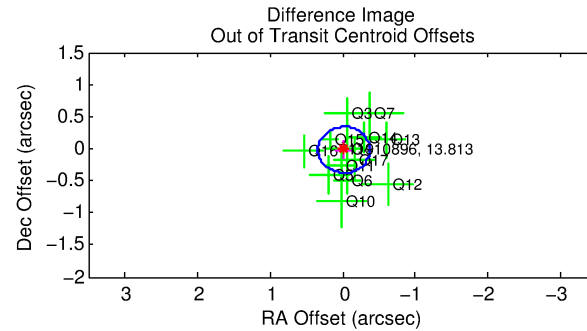
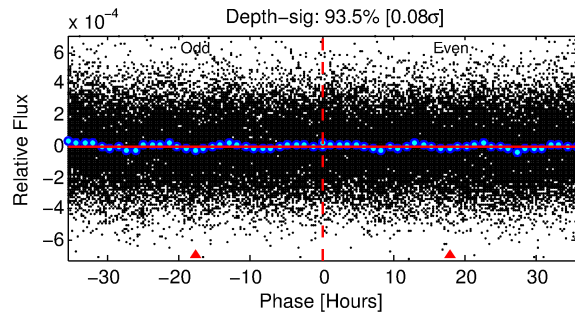
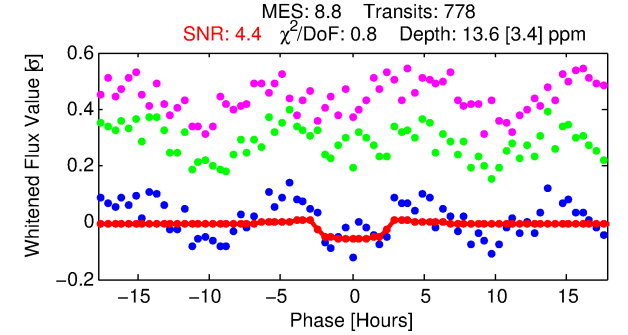
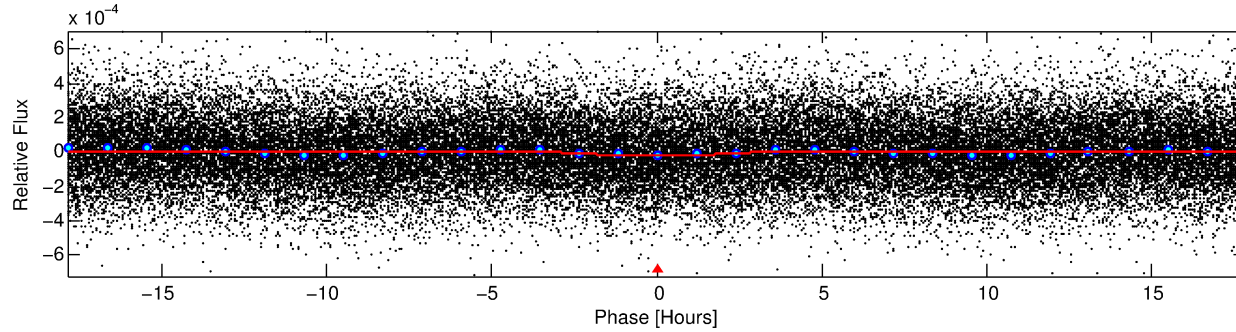
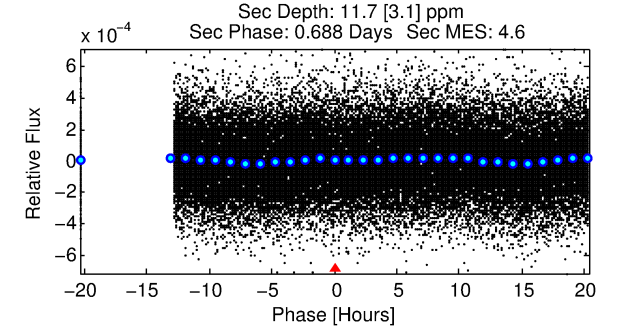
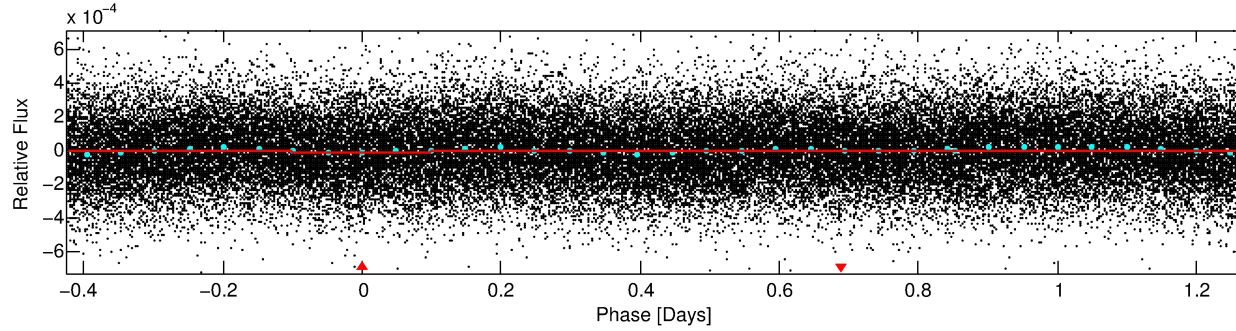
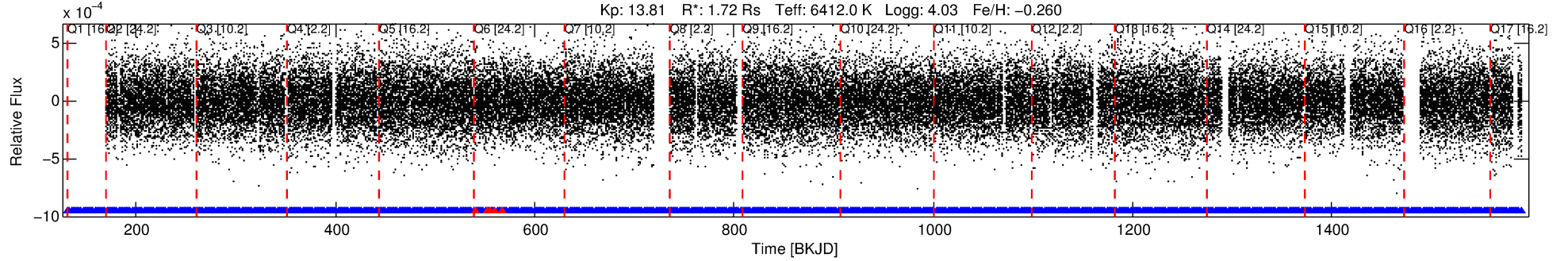
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011910896-01

No Significant Match Found

DV One-Page Summary

KIC: 11910896 Candidate: 1 of 1 Period: 1.695 d



DV Fit Results:

Period = 1.69533 [0.00004] d
Epoch = 131.7309 [0.0144] BKJD
Rp/R* = 0.0046 [0.0008]
a/R* = 1.07 [0.10]
b = 0.99 [0.02]
Seff = 5240.58 [2873.04]
Teq = 2170 [297] K
Rp = 0.87 [0.33] Re
a = 0.0292 [0.0096] AU
Ag = 7.34 [4.99] [1.27σ]
Teffp = 5520 [621] K [4.87σ]

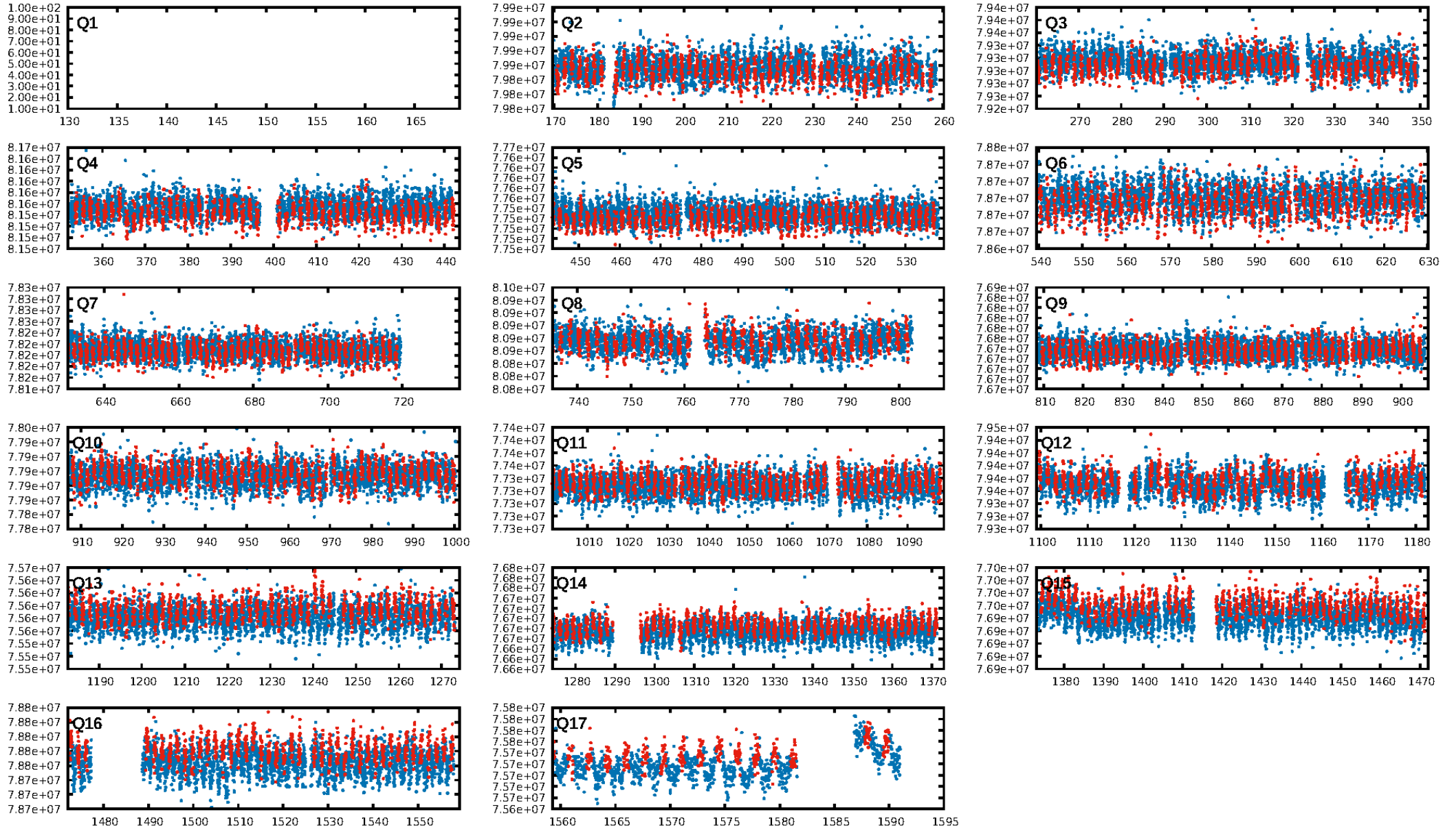
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.89e-15
RollingBand-fgt: 0.99 [757/762]
GhostDiagnostic-chr: -2.914
Centroid-sig: 4.0%
Centroid-so: 3.616 arcsec [1.62σ]
OotOffset-rm: 0.024 arcsec [0.20σ]
KicOffset-rm: 0.173 arcsec [1.41σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.38 [5/13]
DiffImageOverlap-fno: 1.00 [16/16]

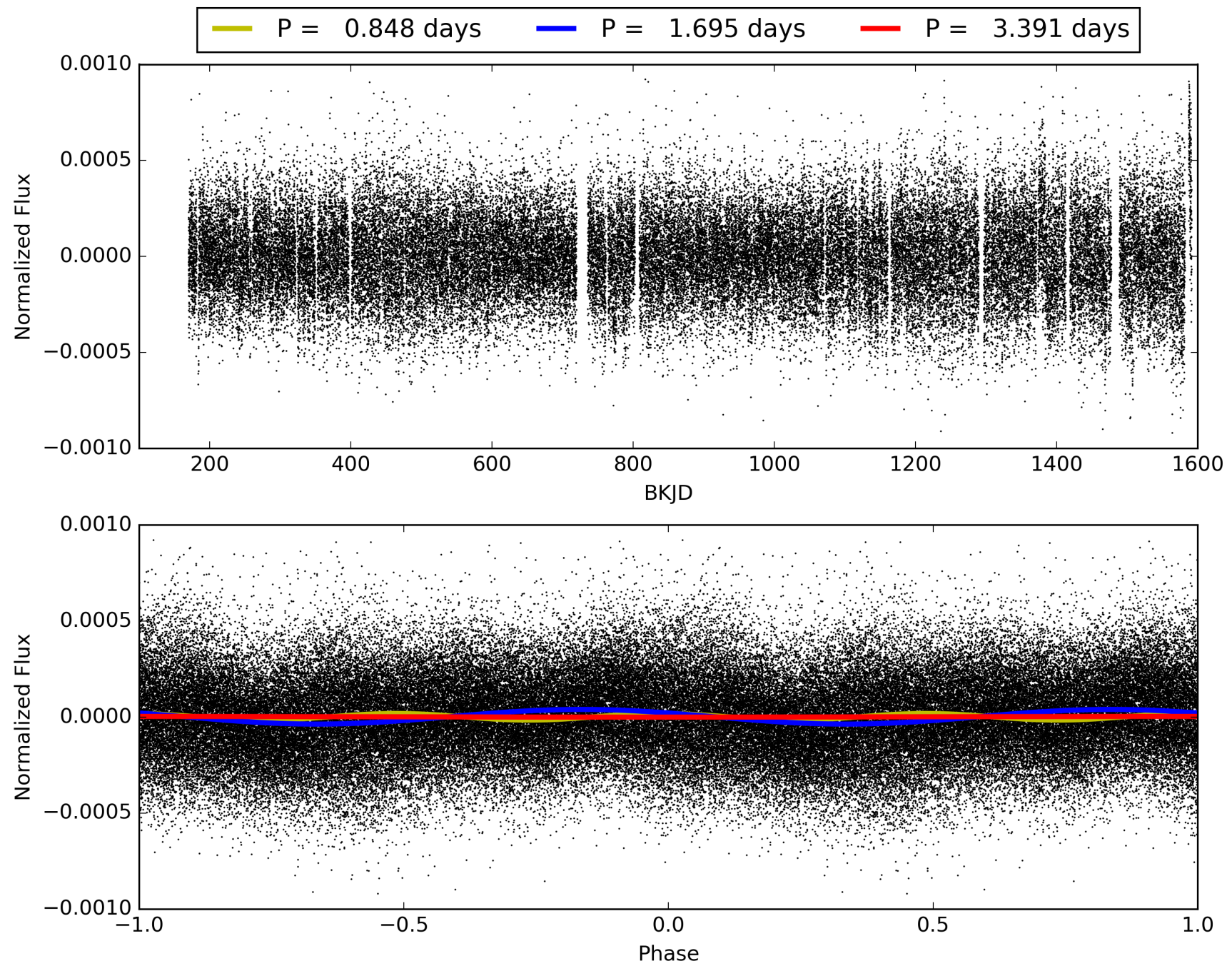
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:36:41 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011910896-01, PDC Light Curves

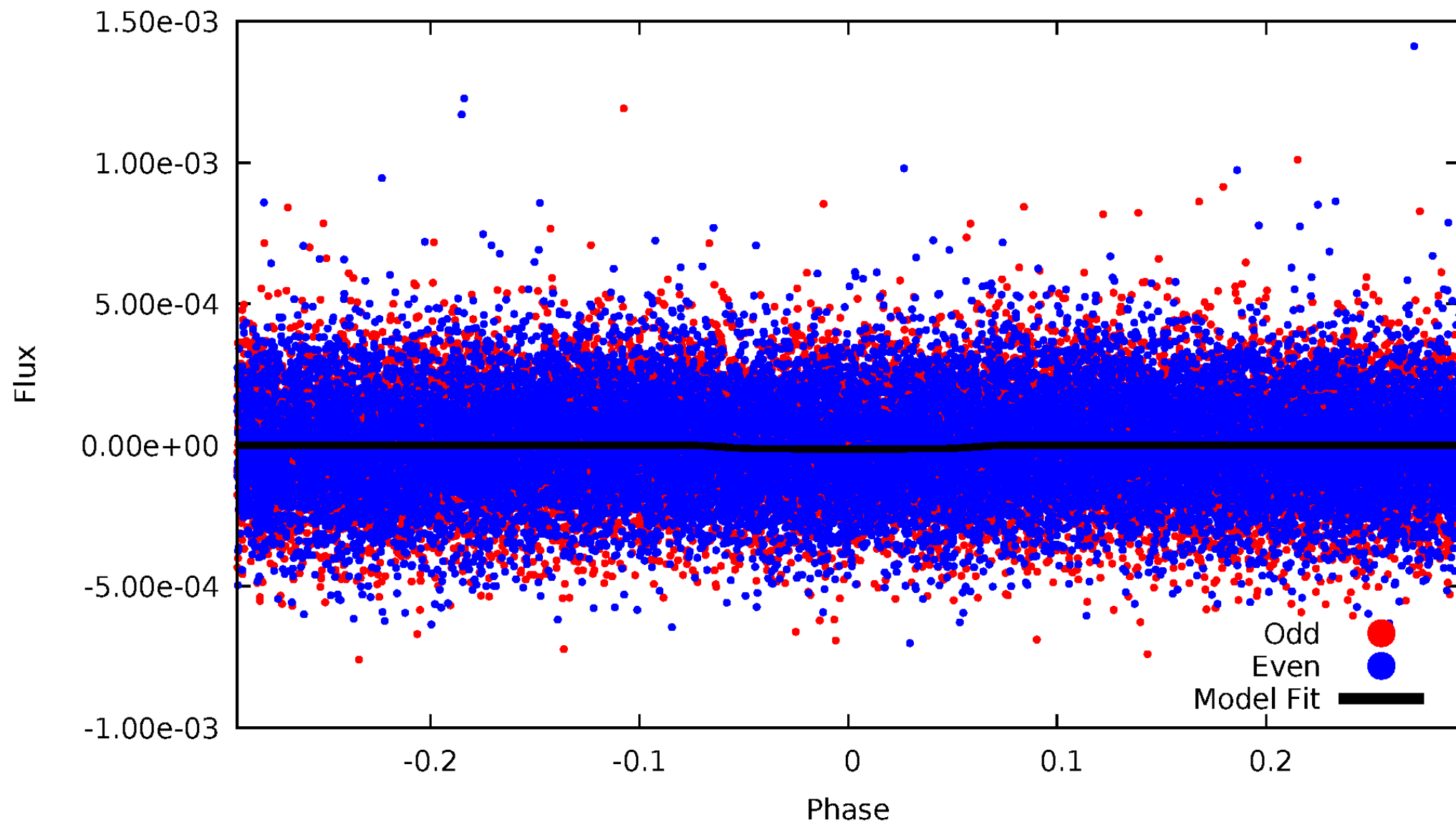


TCE 011910896-01



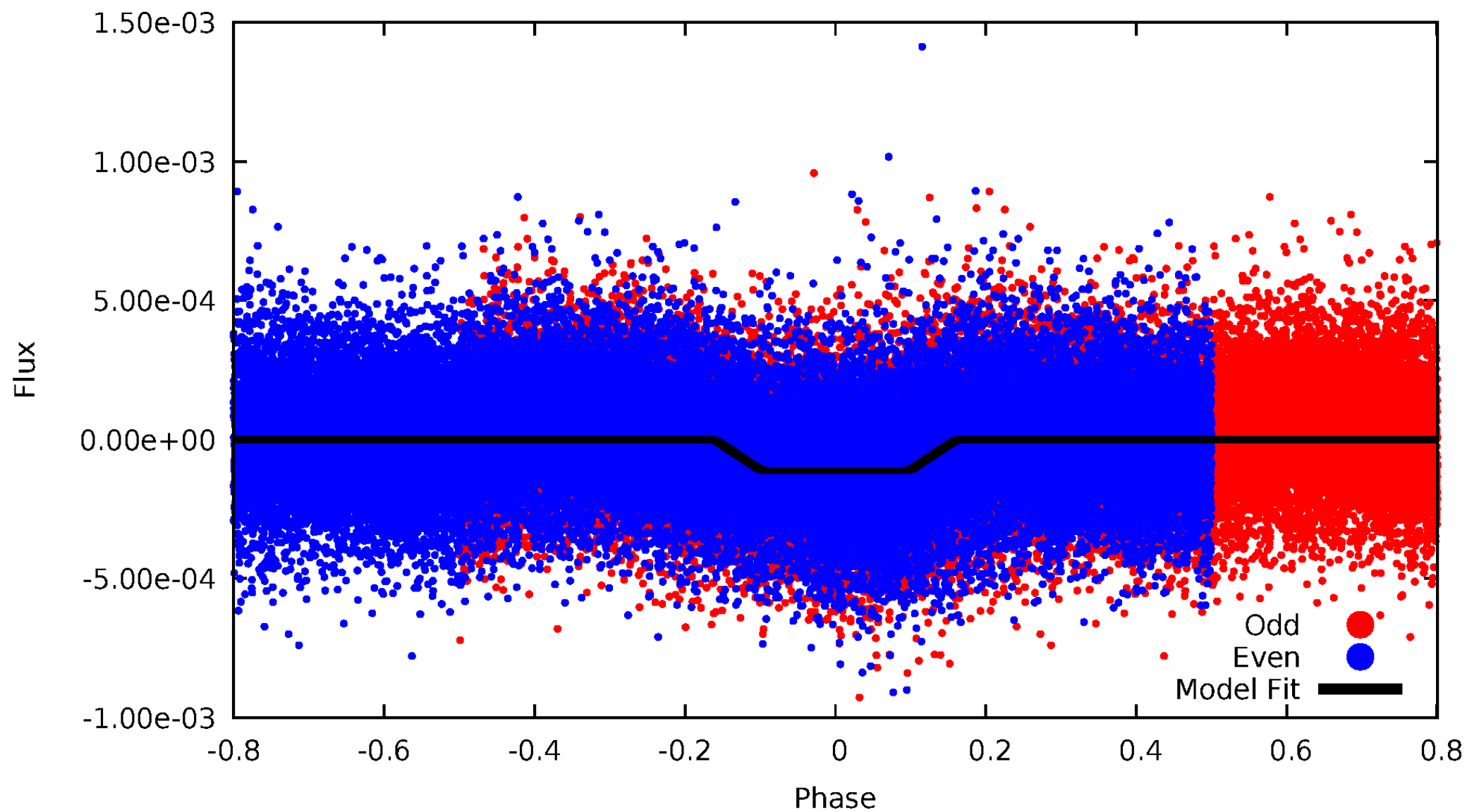
DV Odd/Even

TCE 011910896-01

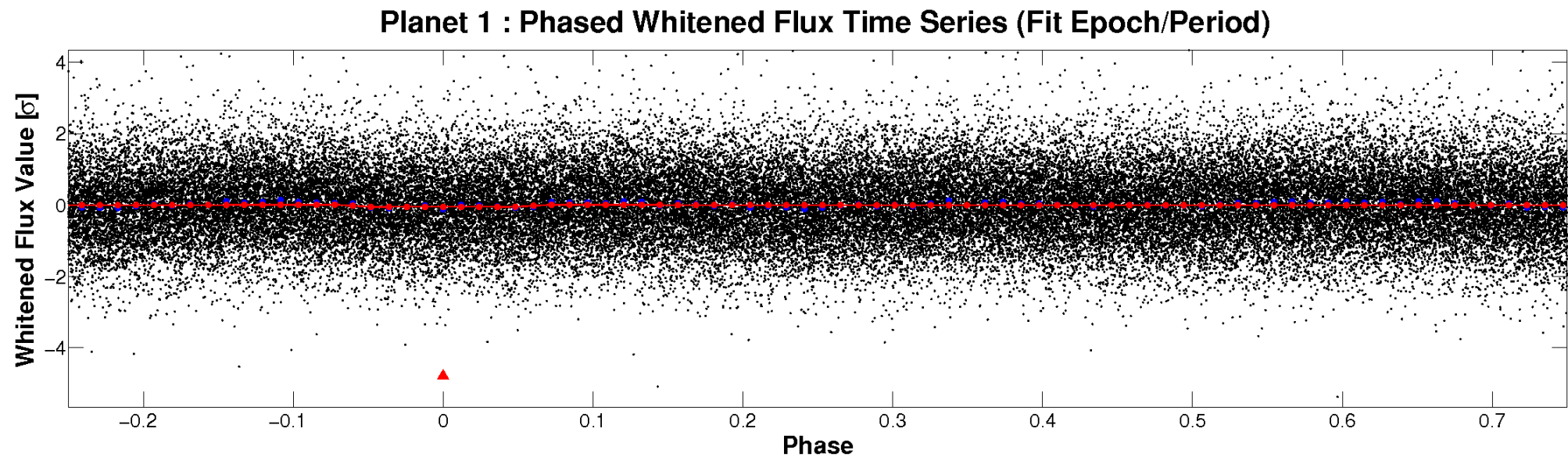
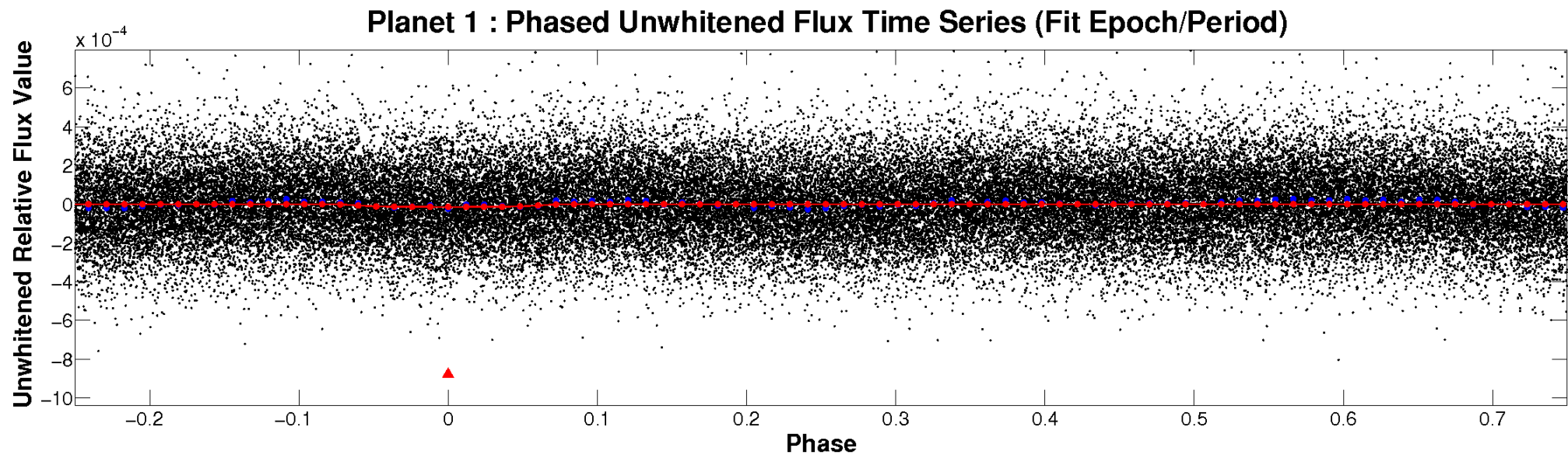


ALT Odd/Even

TCE 011910896-01

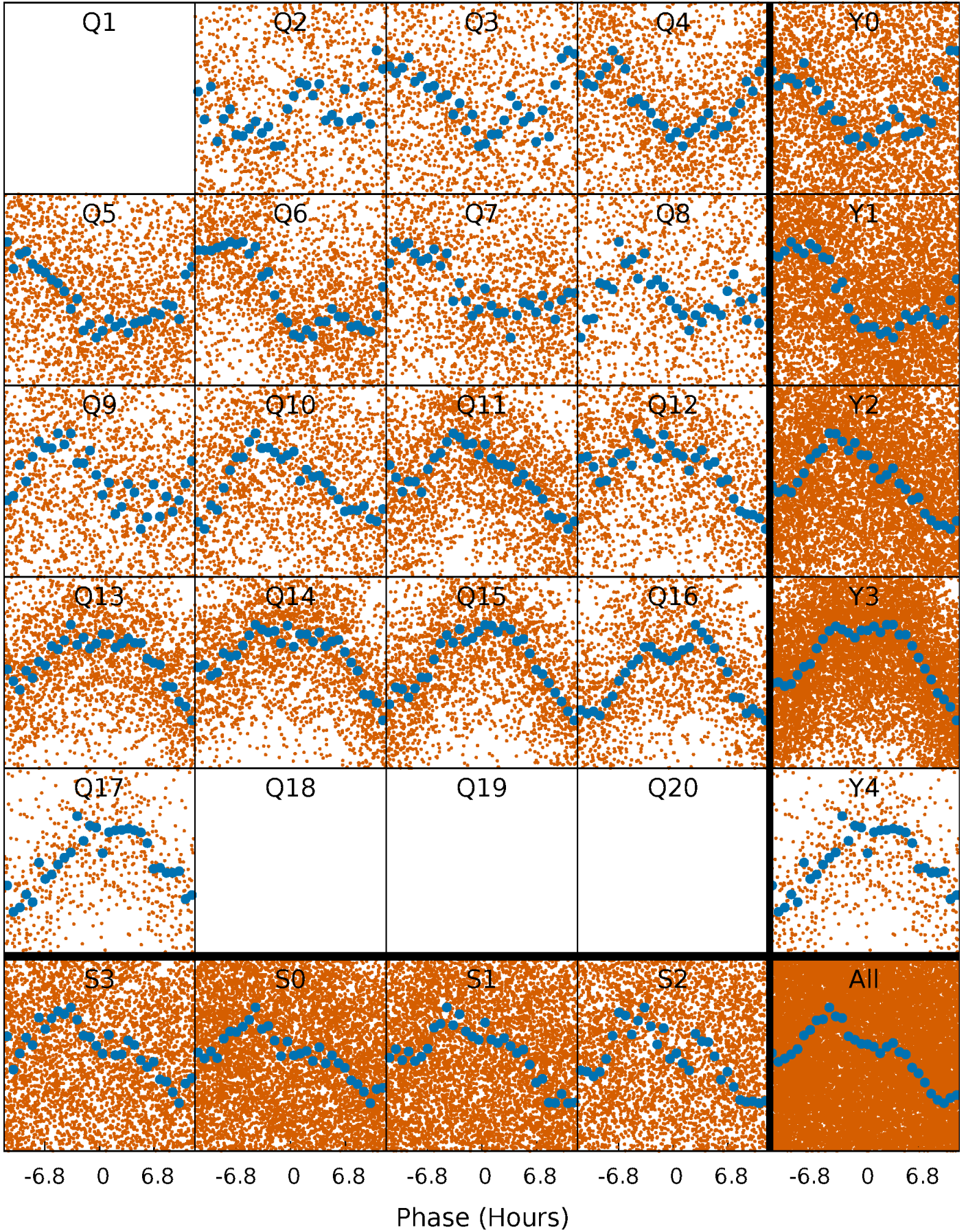


Non-Whitened Vs. Whitened Light Curve



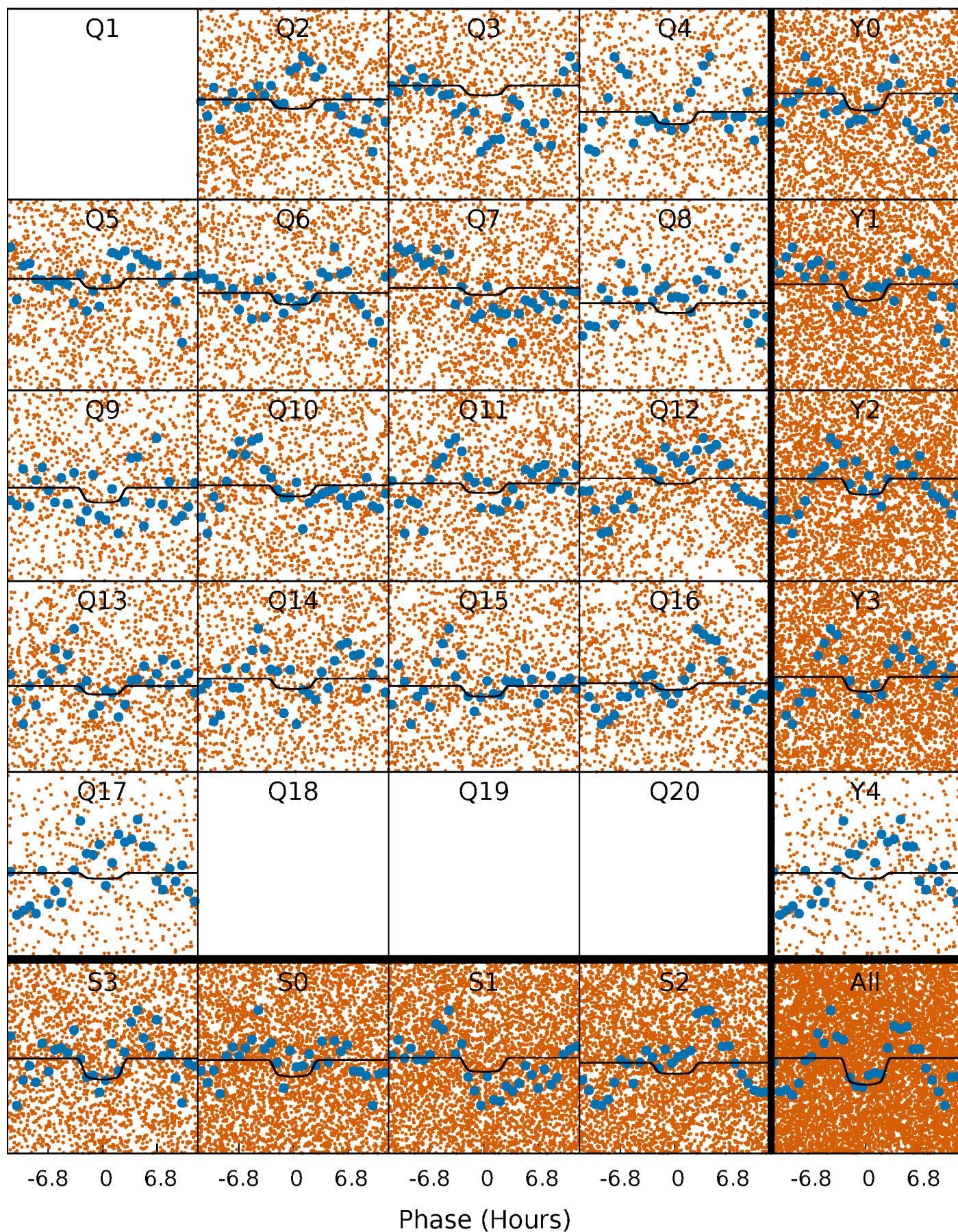
PDC Quarter-Phased Transit Curves

TCE 011910896-01 P= 1.695331 Days $T_0=131.730893$ (BKJD)



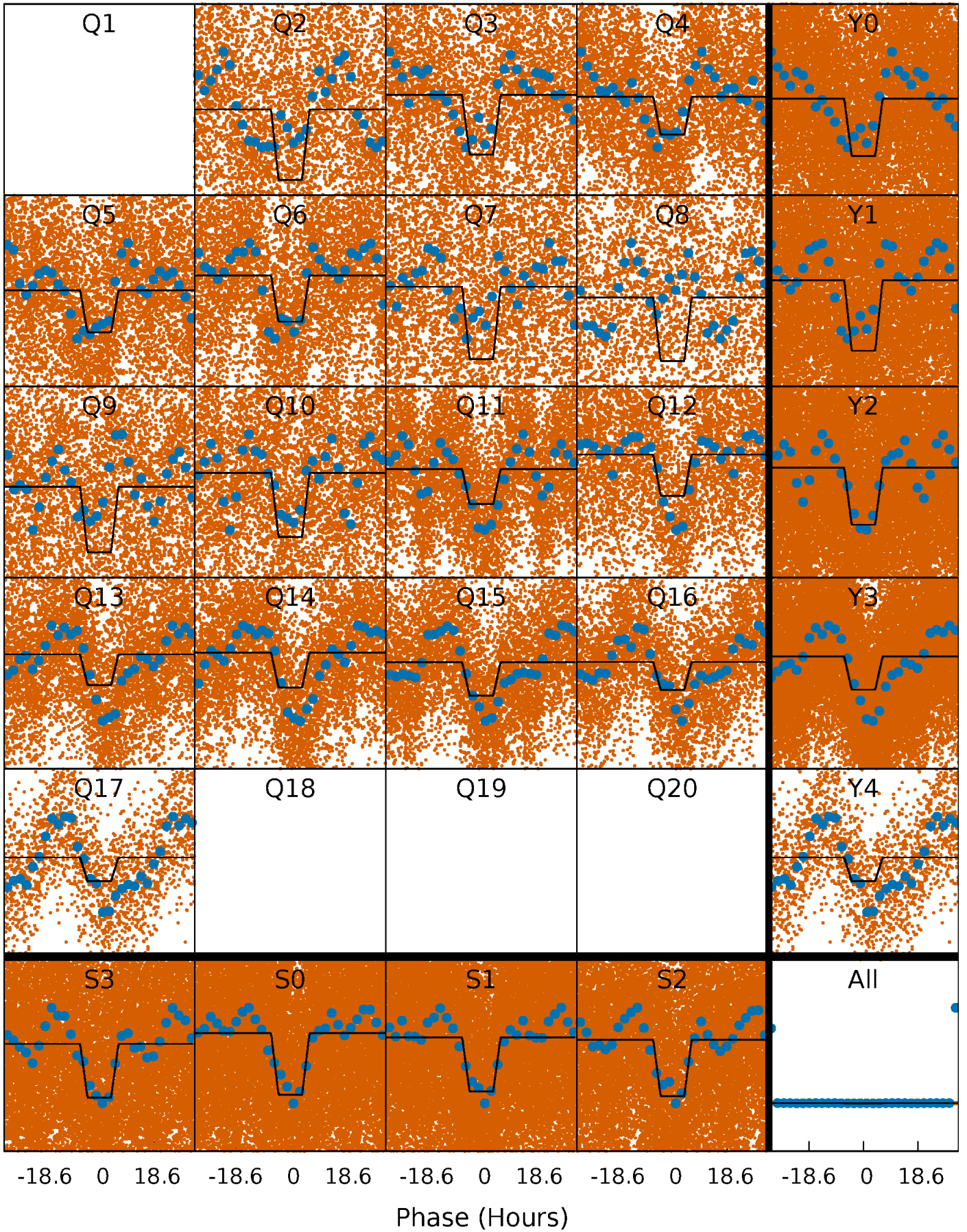
DV Quarter-Phased Transit Curves

TCE 011910896-01 P= 1.695331 Days $T_0=131.730893$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

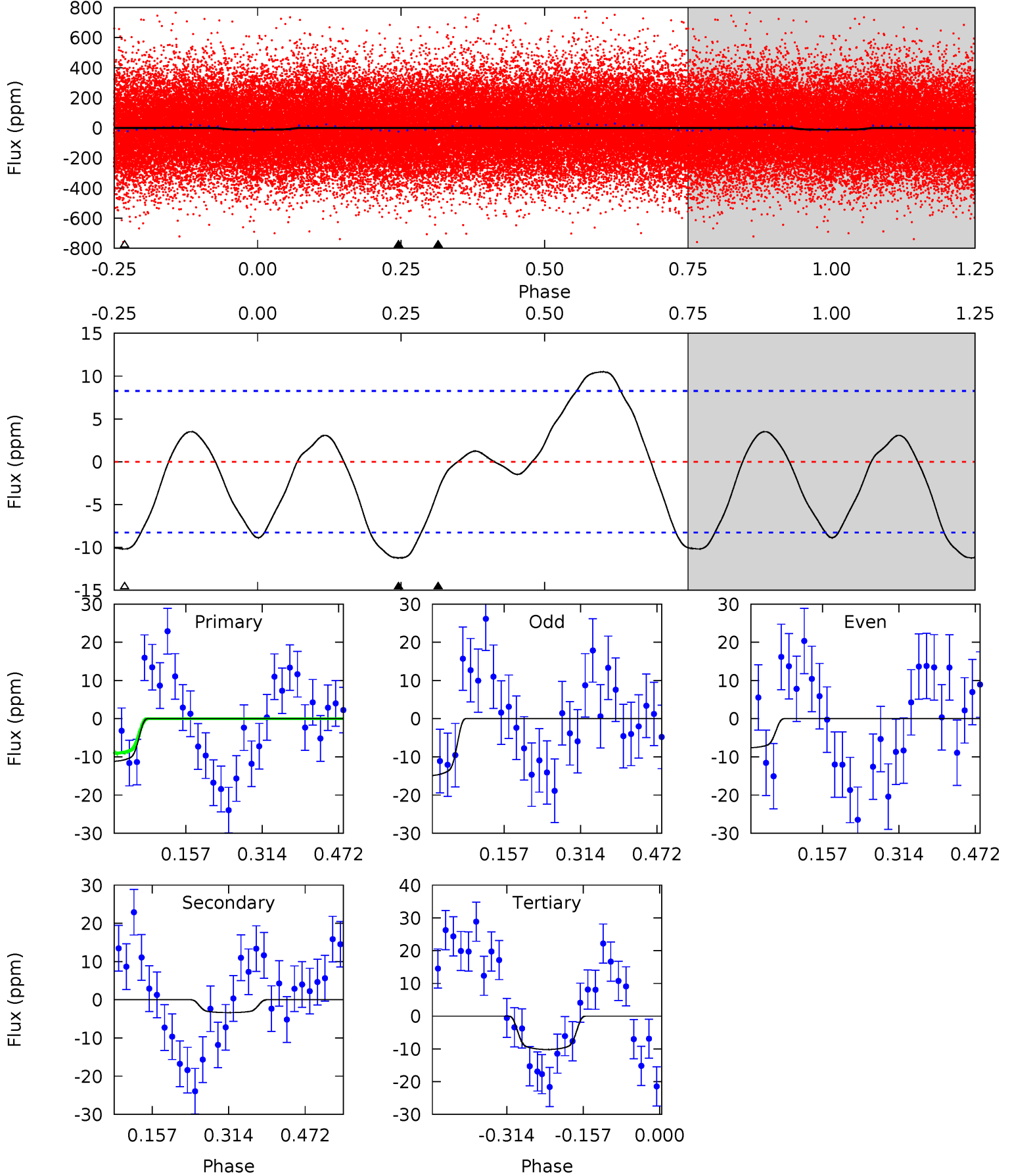
TCE 011910896-01 P= 1.695852 Days $T_0=131.893549$ (BKJD)



DV Model-Shift Uniqueness Test

011910896-01, P = 1.695331 Days, E = 131.730893 Days

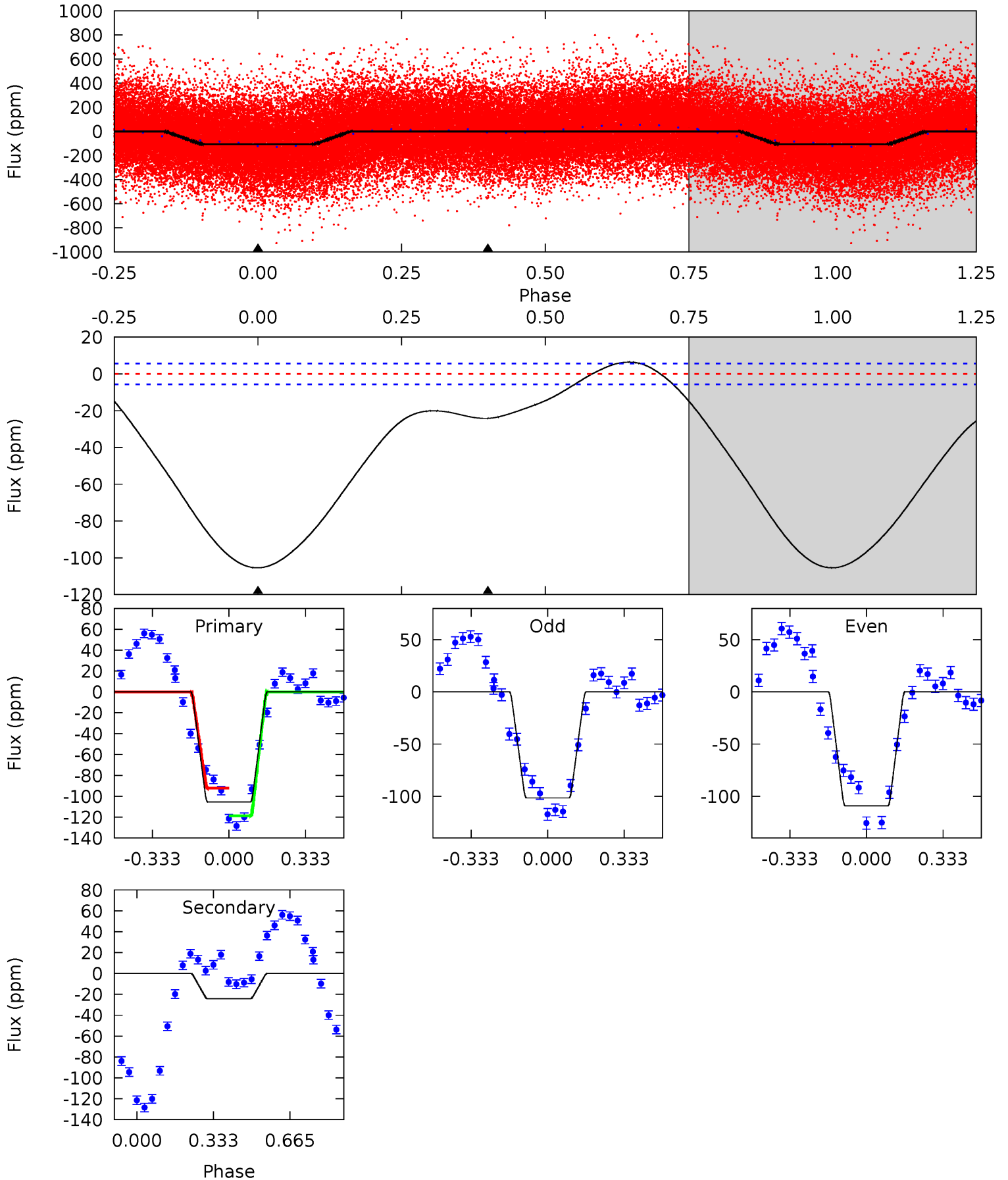
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.06	1.82	5.50	0	4.47	1.41	3.41	0.55	6.06	-3.69	1.82	1.99	0.58	0.48	1.18



Alt Model-Shift Uniqueness Test

011910896-01, P = 1.695852 Days, E = 131.893549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
80.2	18.4	0	0	4.31	0.97	4.93	80.2	80.2	18.4	18.4	2.90	1.03	0.06	10.1



Stellar Parameters For KIC 011910896

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6412^{+181}_{-227}	$4.031^{+0.312}_{-0.144}$	$-0.260^{+0.250}_{-0.300}$	$1.719^{+0.477}_{-0.583}$	$1.157^{+0.188}_{-0.188}$	$0.321^{+0.701}_{-0.151}$
	+3%/-4%	+8%/-4%	+96%/-115%	+28%/-34%	+16%/-16%	+218%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011910896-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3 ± 2	$0.82^{+0.23}_{-0.19}$	2983^{+209}_{-279}	4167^{+539}_{-688}	$2.303^{+2.409}_{-1.395}$
Alt.	-24 ± 1	$1.90^{+0.34}_{-0.34}$	2972^{+232}_{-262}	4455^{+188}_{-187}	$3.166^{+1.355}_{-0.889}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

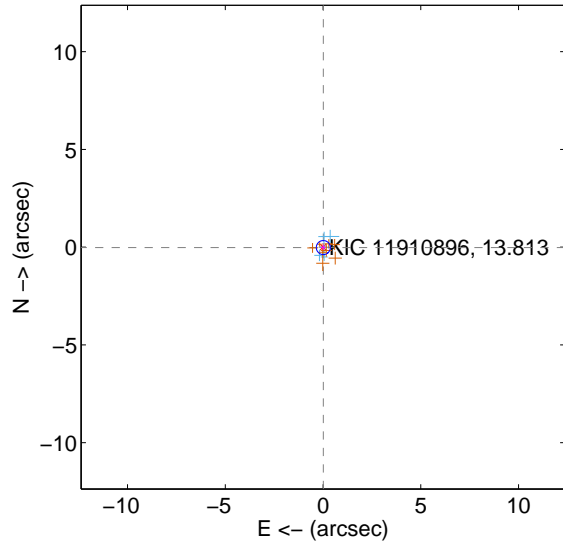
Supplemental centroid analysis for 011910896-01. Kepler magnitude: 13.81. Transit SNR 4.41

There are 5 quarters with good PRF difference image offsets

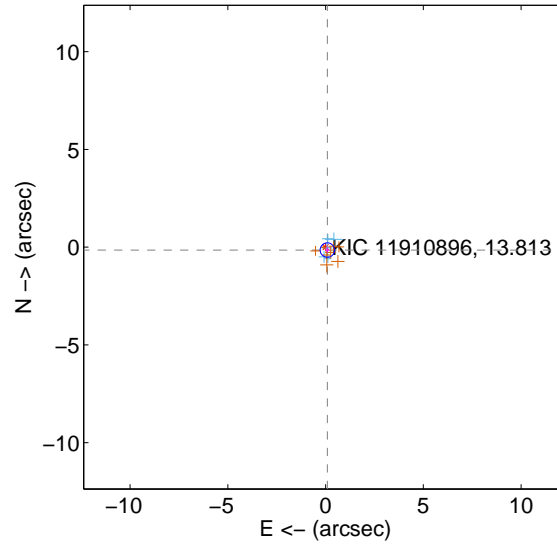
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.024 ± 0.120	0.20	-0.015 ± 0.107	-0.019 ± 0.129
PRF-fit source offset from KIC position	0.173 ± 0.123	1.41	-0.091 ± 0.110	-0.147 ± 0.130
photometric centroid source offset	3.62 ± 2.23	1.62	-2.74 ± 2.11	2.36 ± 2.39

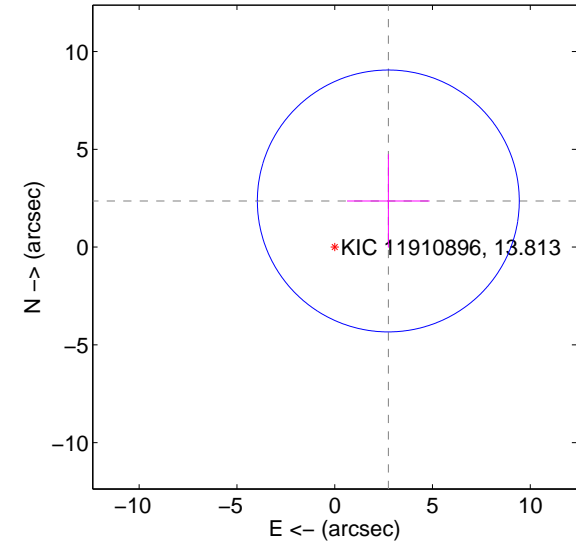
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

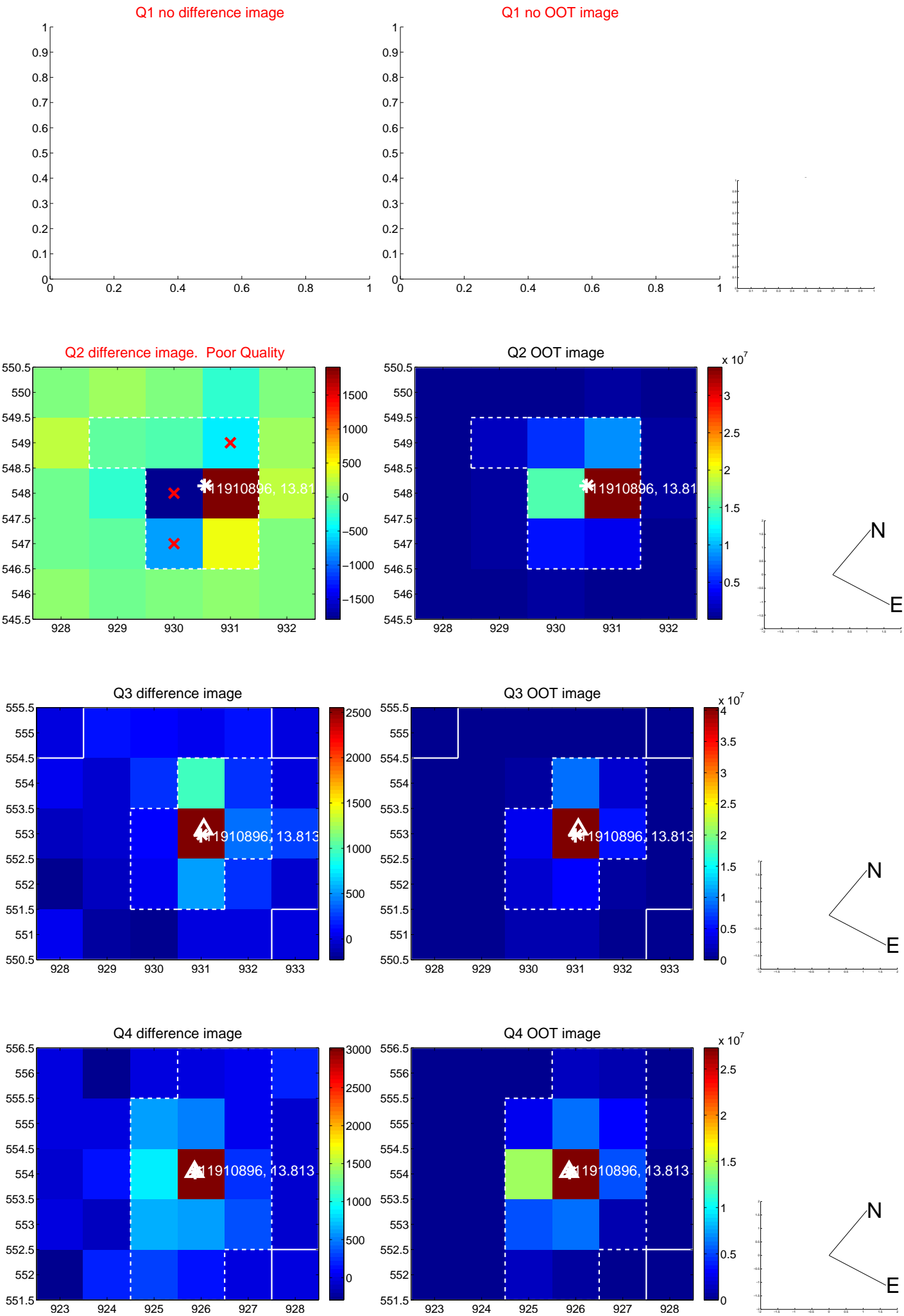


offset from photometric centroids

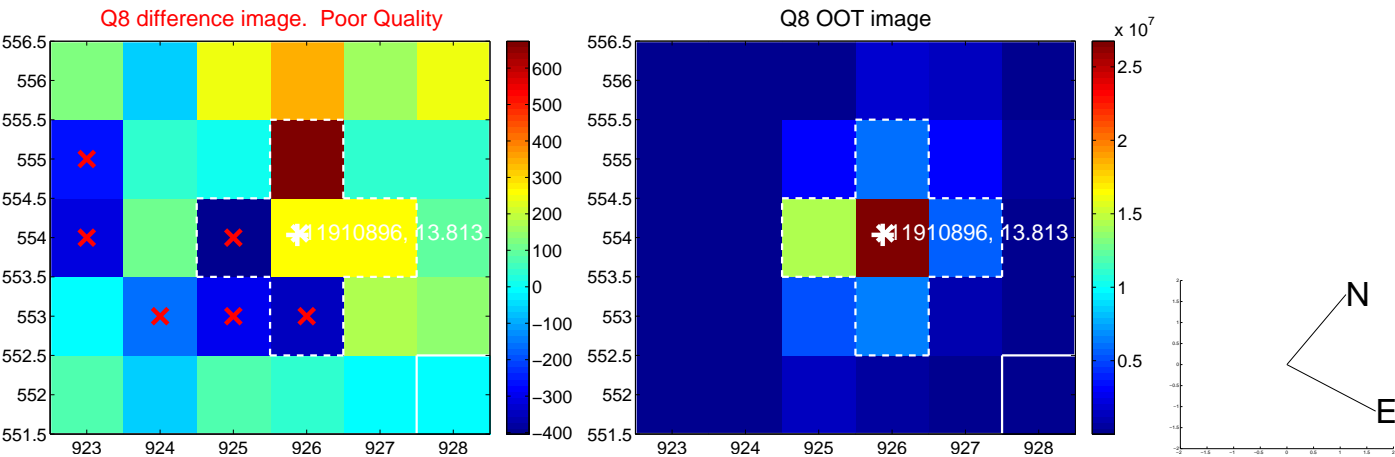
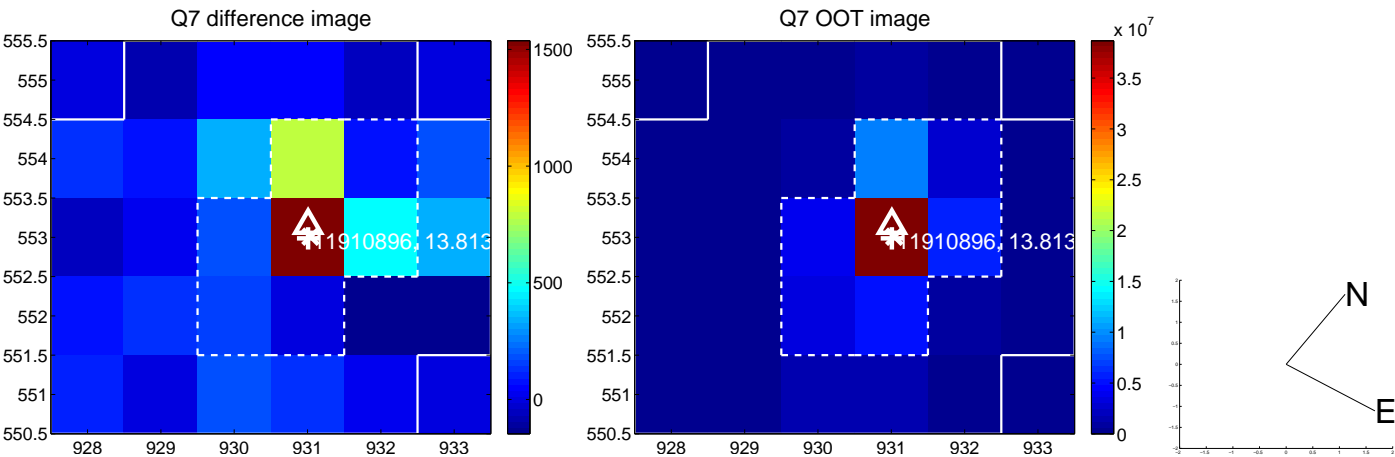
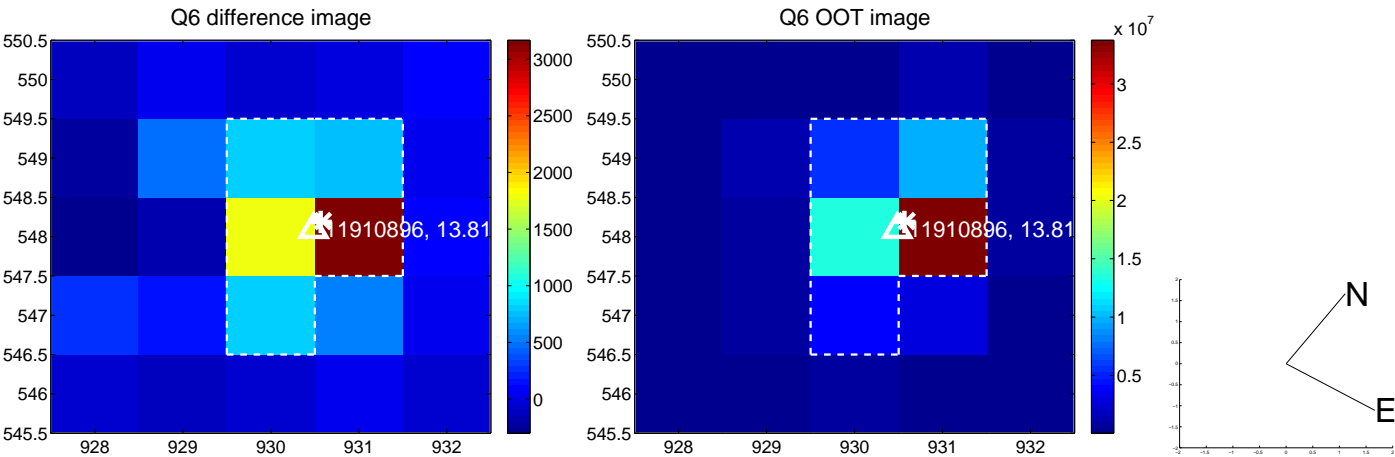
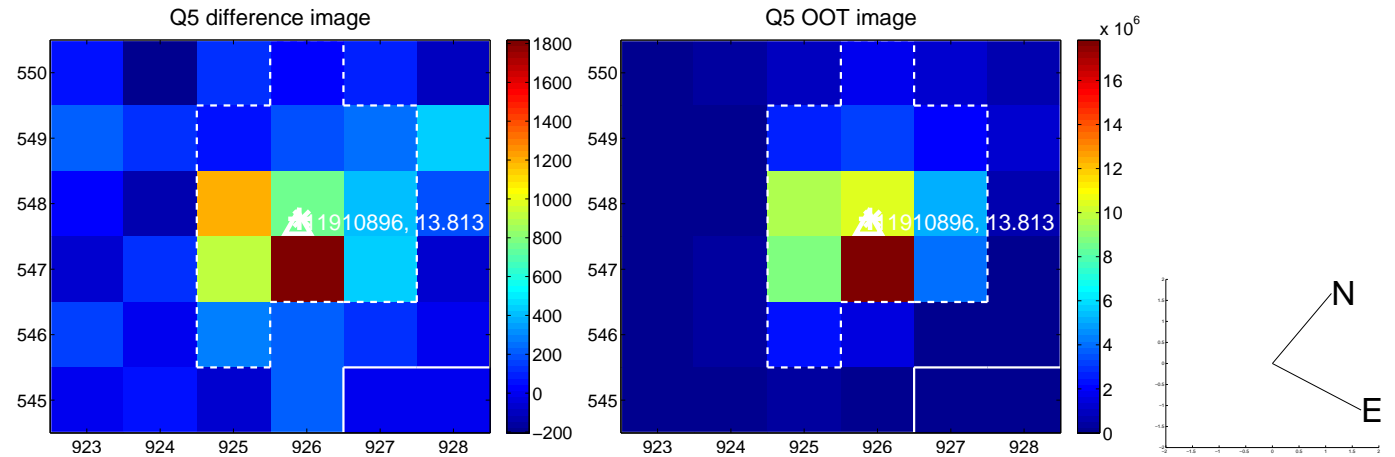


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

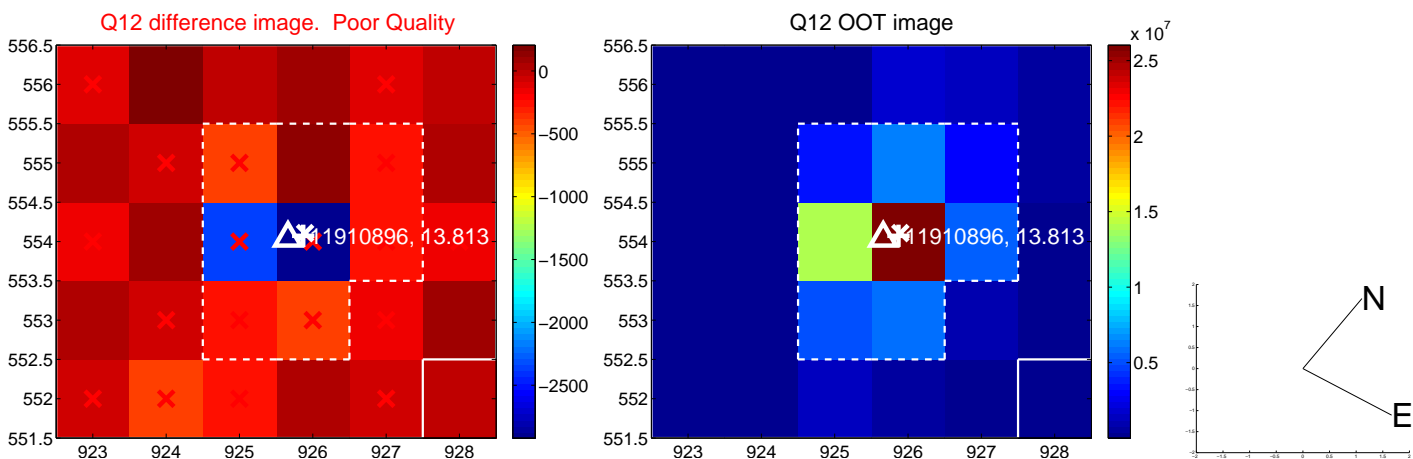
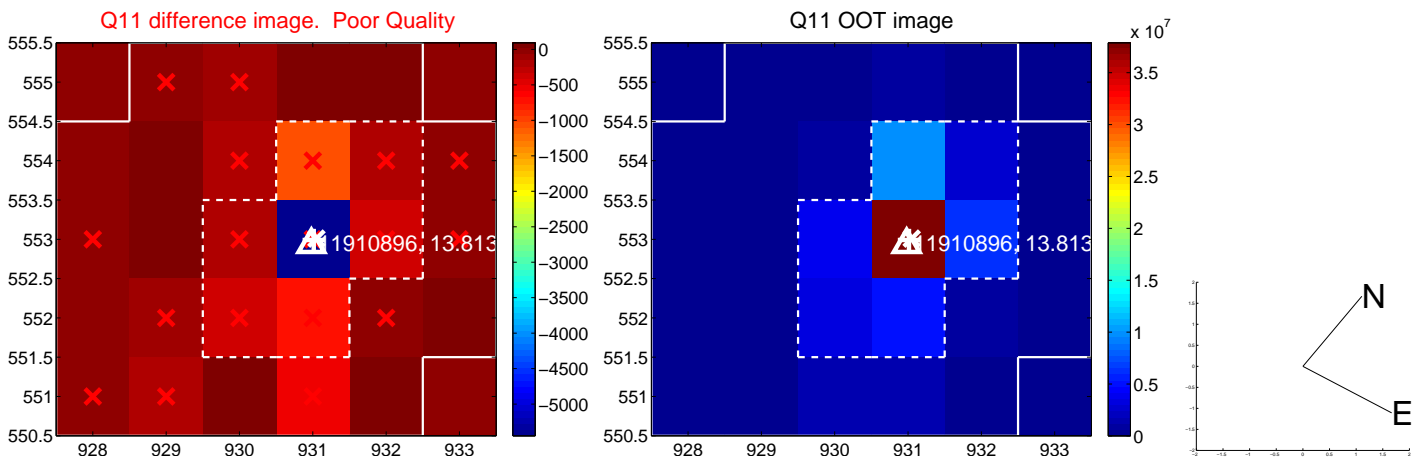
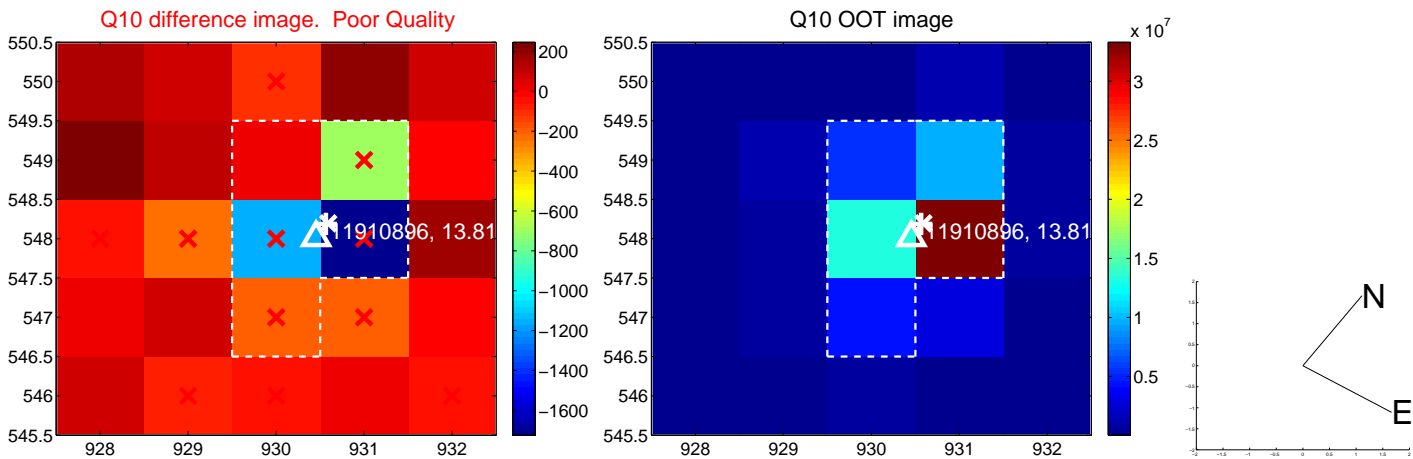
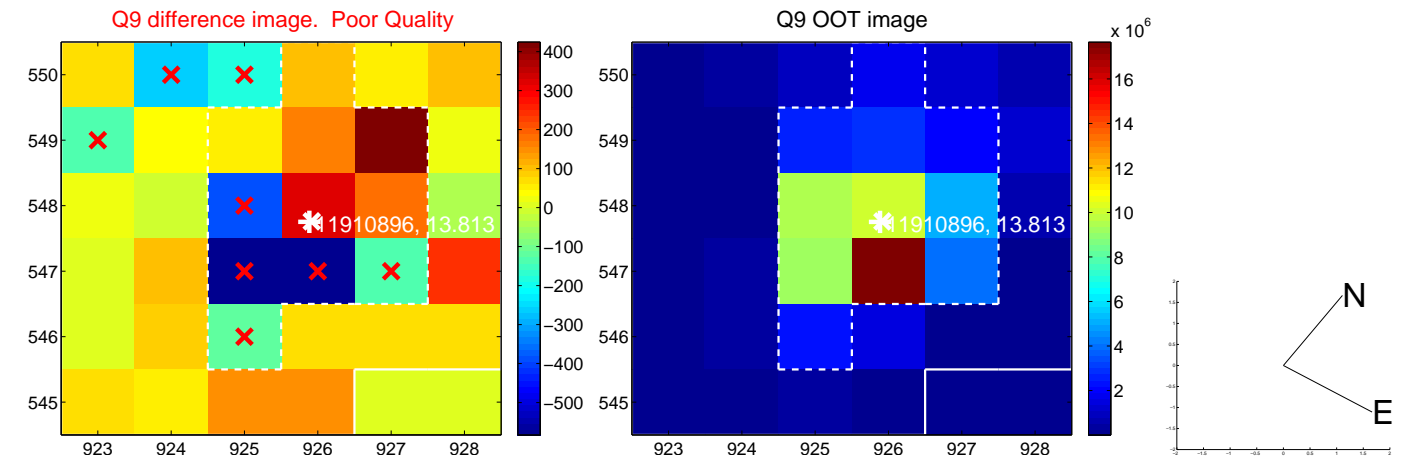
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



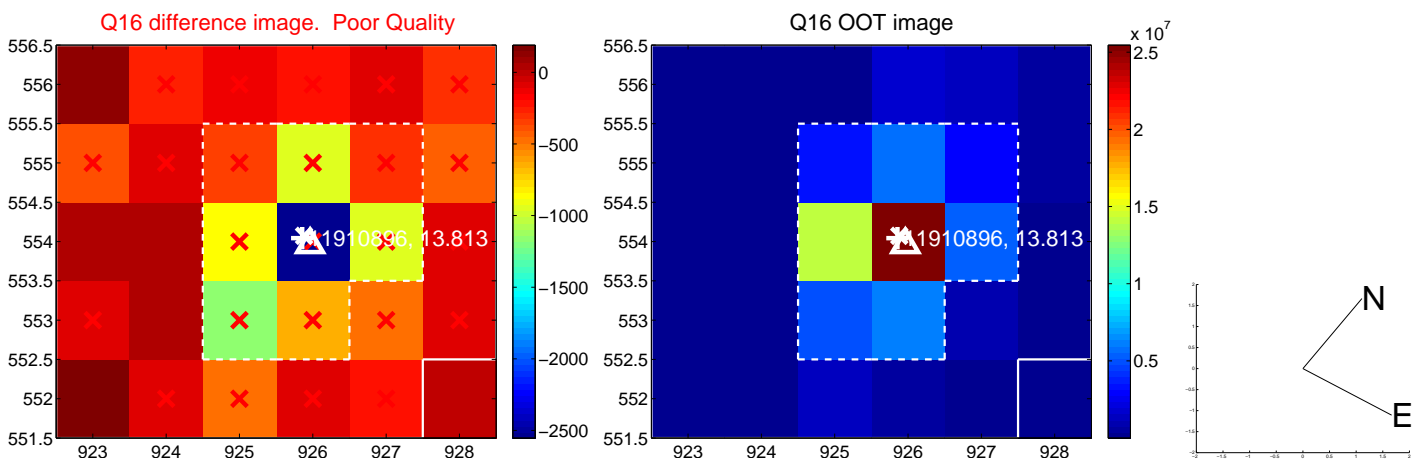
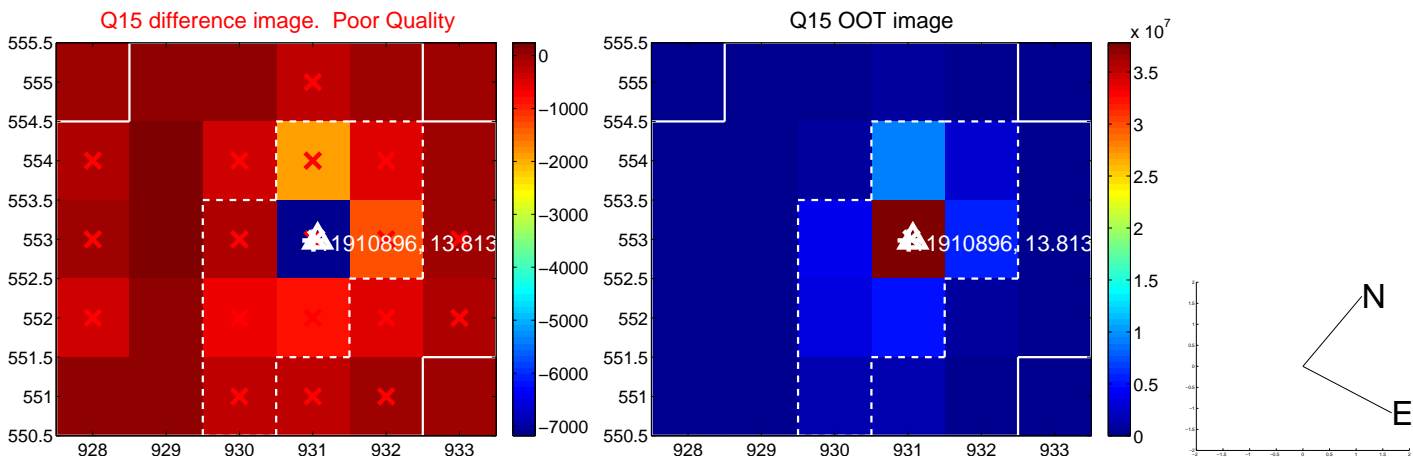
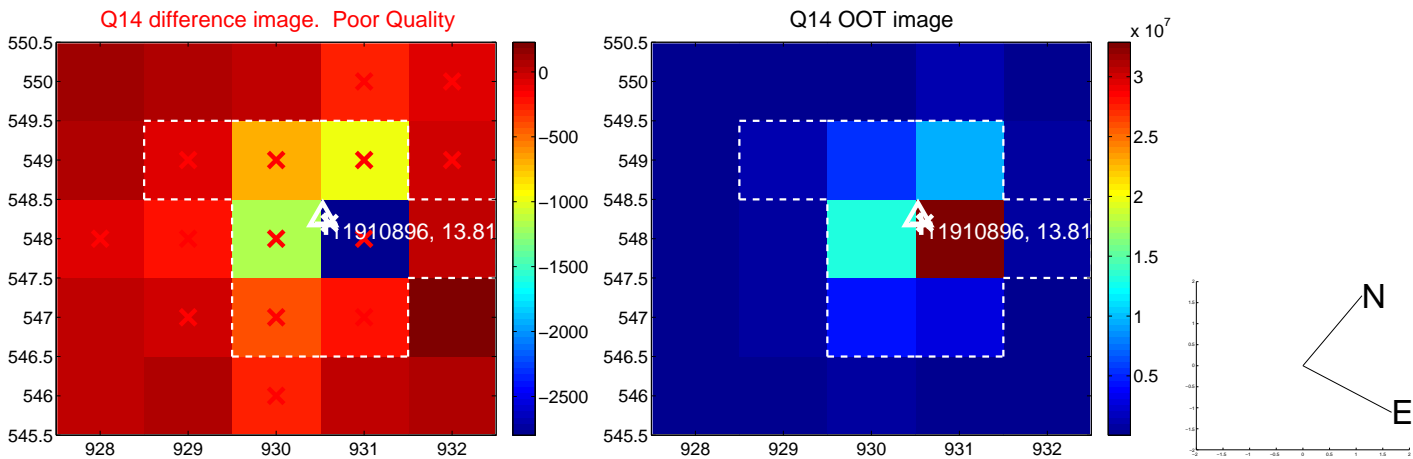
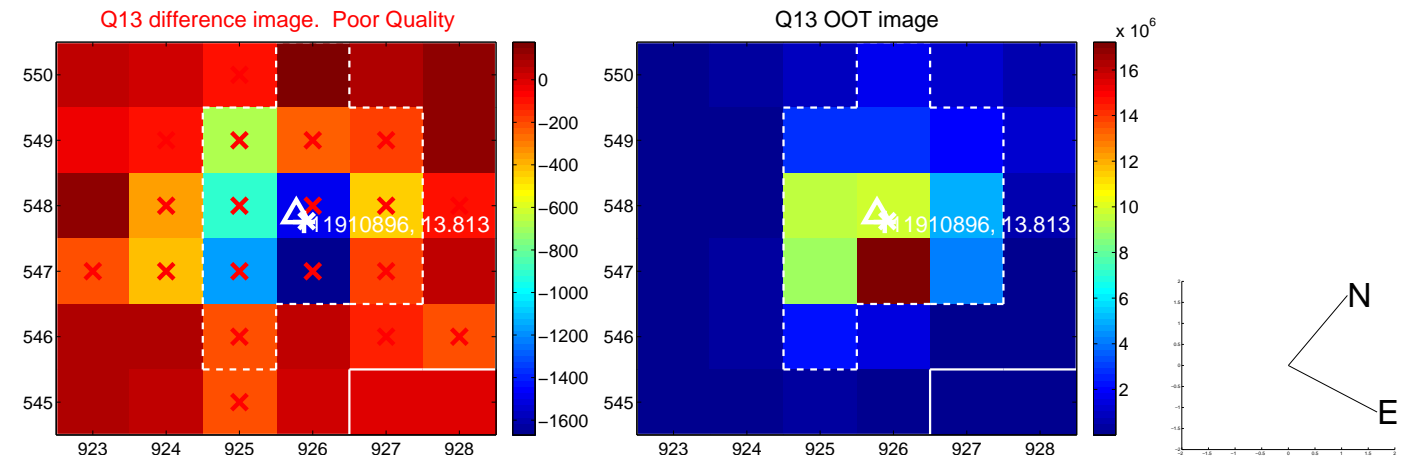
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



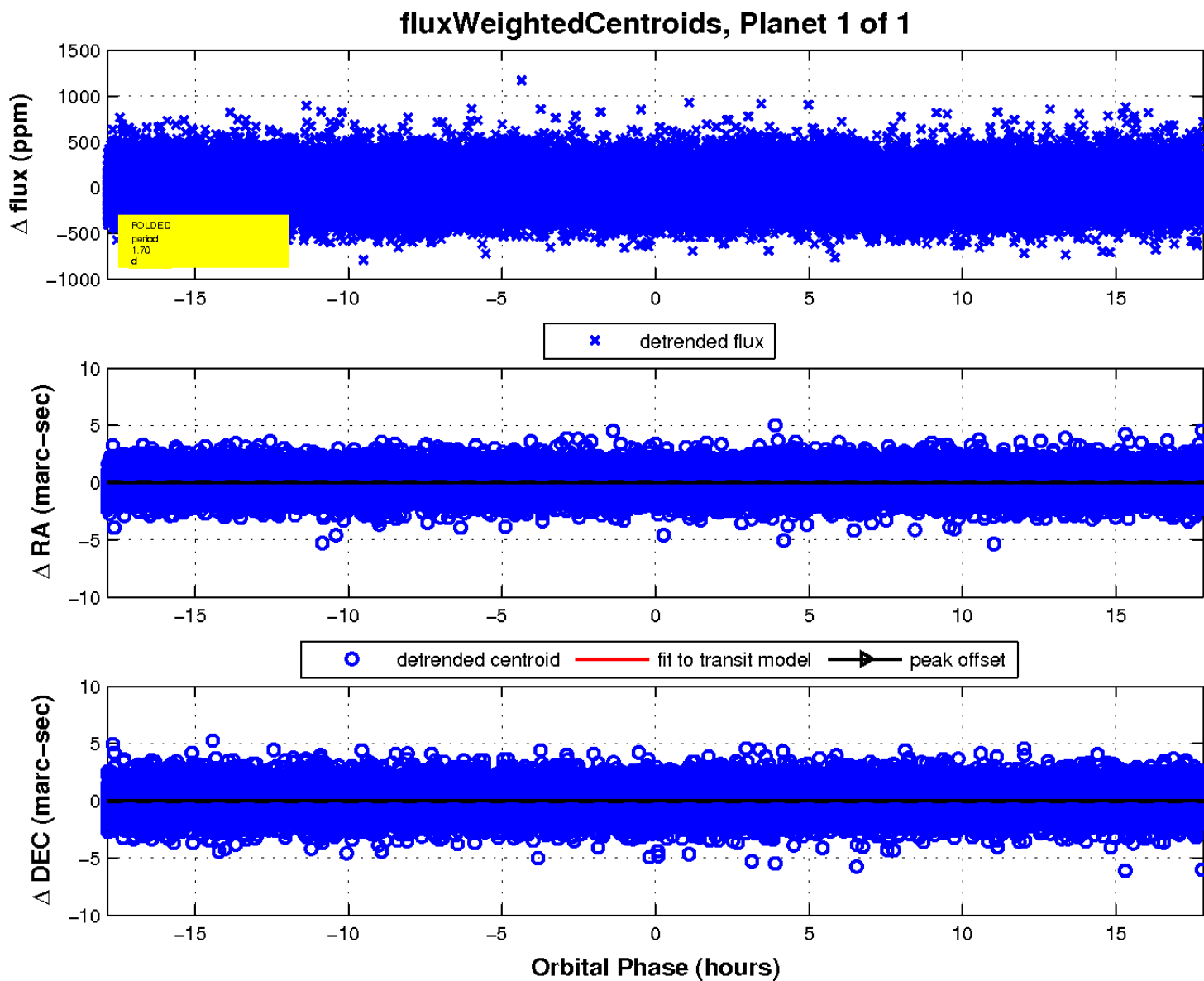
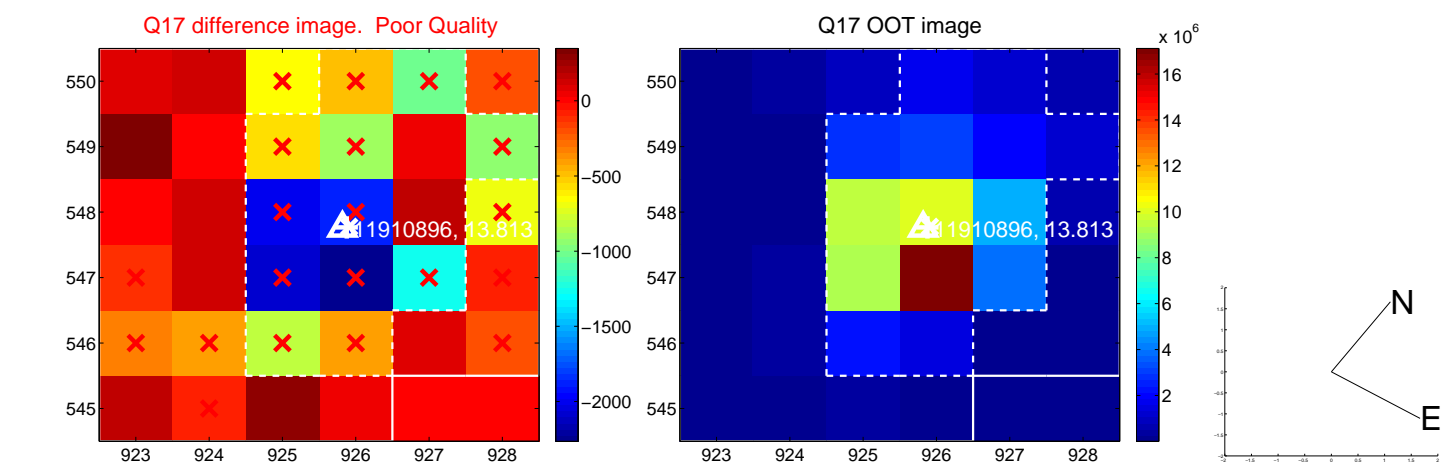
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

